

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all previous versions and listings of claims in this application.

Claim Listing:

1. (Currently Amended) A method comprising:

adding non-IP telephony signaling protocol service reference information to an IP telephony ~~signalling~~ signaling protocol message; and

sending the IP telephony ~~signalling~~ signaling protocol message to a network node.

2. (Currently Amended) A method according to claim 1, wherein said IP telephony ~~signalling~~ signaling protocol message is a message initiating a session.

3. (Previously Presented) A method according to claim 1, the method further comprising:

routing a call to the network node via an entry point; and

performing said adding in the entry point.

4. (Currently amended) A method according to claim 3, wherein at least the address of the entry point is added as service reference information to the IP telephony ~~signalling~~ signaling protocol message.

5. (Currently amended) A method according to claim 1, wherein said service reference information ~~is-comprises~~ comprises CAMEL-related information, the method further comprising:

routing a call to the network node via an entry point;

generating a CAMEL call reference number for the call in the entry point; and

adding at least the CAMEL call reference number as said service reference

information to the IP telephony ~~signalling~~-~~signaling~~ protocol message in the entry point.

6. (Currently Amended) A method according to claim 1, wherein said service reference information ~~is~~-~~comprises~~ CAMEL-related information, the method further comprising:

routing a call to the network node via an entry point;

generating a CAMEL call reference number for the call in the entry point; and

coding the CAMEL call reference number and the address of the entry point to a digit string; and

adding at least the digit string as service reference information to the IP telephony ~~signalling~~-~~signaling~~ protocol message in the entry point.

7. (Currently Amended) A method according to claim 1, wherein said IP telephony ~~signalling~~-~~signaling~~ protocol message is a response message acknowledging a message invoking a session.

8. (Currently Amended) A method according to claim 7, the method further comprising:

receiving an IP telephony ~~signalling~~-~~signaling~~ protocol message in a network node serving a called subscriber; and

adding at least the address of said network node serving a called subscriber as service reference information to the response message.

9. (Currently Amended) A method according to claim 1, wherein said service reference information ~~is~~-~~comprises~~ CAMEL-related information and said IP telephony ~~signalling~~-~~signaling~~ protocol message is a response message acknowledging a message invoking a session, the method further comprising:

receiving an IP telephony ~~signalling~~-~~signaling~~ protocol message invoking a session in a network node serving a called subscriber;

generating a CAMEL call reference number for the call in said network node serving a called subscriber; and

adding at least the CAMEL call reference number as service reference information to the response message in said node serving a called subscriber.

10. (Currently Amended) A method according to claim 1, wherein said service reference information ~~is comprises~~ CAMEL-related information and said IP telephony ~~signalling~~ signaling protocol message is a response message acknowledging a message invoking a session, the method further comprising:

receiving an IP telephony ~~signalling~~ signaling protocol message in a network node serving a called subscriber;

generating a CAMEL call reference number for the call in said network node serving a called subscriber;

coding the CAMEL call reference number and the address of said network node serving a called subscriber to a digit string; and

adding at least the digit string as service reference information to the response message.

11. (Currently amended) A method according to claim 1, wherein said service reference information ~~is comprises~~ OSA-related information.

12. (Currently amended) A method according to claim 1, wherein said service reference information ~~is comprises~~ Parlay API-related information.

13. (Currently Amended) A method according to claim 1, wherein said IP telephony ~~signalling~~ signaling protocol ~~is comprises~~ SIP.

14. (Currently Amended) A method according to claim 1, wherein said IP telephony ~~signalling~~ signaling protocol ~~is comprises~~ H.323.

15. (Previously Presented) A method for providing a network node serving a

called subscriber with CAMEL-related information in an IP-based system using SIP, wherein the method comprises:

routing a call to the network node via an entry point for the called subscriber;

generating a CAMEL call reference number for the call in the entry point;

adding at least the CAMEL call reference number and the address of the entry point as CAMEL-related information to the SIP INVITE message; and

sending the SIP INVITE message to the network node.

16. (Previously Presented) A method-comprising:

routing a call to a network node serving a called subscriber via an entry point for the called subscriber;

generating a CAMEL call reference number for the call in the entry point;

coding the CAMEL call reference number and the address of the entry point in a digit string;

adding at least the digit string as CAMEL-related information to a SIP INVITE message; and

sending the SIP INVITE message to the network node.

17. (Previously Presented) A method comprising:

receiving a SIP INVITE message in a network node serving a called subscriber from an entry point for the called subscriber;

generating a CAMEL call reference number for the call in the network node;

adding at least the CAMEL call reference number and the address of the network node as CAMEL-related information to a SIP response message acknowledging SIP INVITE message; and

sending the SIP response message to the entry point.

18. (Previously Presented) A method comprising:

receiving a SIP INVITE message in a network node serving a called subscriber from an entry point for the called subscriber;

generating a CAMEL call reference number for the call in the network node;

coding the CAMEL call reference number and the address of the network node in a digit string;

adding the digit string as CAMEL-related information to a SIP response message acknowledging the SIP INVITE message; and

sending the SIP response message to the entry point.

19. (Currently Amended) A method according to claim 13, wherein said service reference information ~~is~~comprises CAMEL-related information added to the header of the IP telephony ~~signalling~~signaling protocol message.

20. (Previously Presented) A method according to claim 13, wherein said service reference information ~~is~~comprises CAMEL-related information added to the body of the SIP message.

21. (Currently Amended) A communications system providing IP telephony, the system comprising: ~~at least~~

user equipment;

a first network node; and

a second network node,

wherein

the first network node is arranged to add non-IP telephony signaling protocol service

reference information relating to a call made to the user equipment to an IP telephony ~~signalling~~-signaling protocol message and to send the IP telephony ~~signalling~~-signaling protocol message to the second network node; and

the second network node is arranged to separate the service reference information from the IP telephony ~~signalling~~-signaling protocol message.

22. (Currently Amended) A communications system according to claim 21, wherein

the first network node is arranged to add its address as service reference information to the IP telephony ~~signalling~~-signaling protocol message.

23. (Currently Amended) A communications system according to claim 21, wherein

the communications system provides a CAMEL service; and

the first network node is arranged to generate a CAMEL call reference number and to add at least the generated CAMEL call reference number as service reference information to the IP telephony ~~signalling~~-signaling protocol message.

24. (Original) A communications system using SIP for IP telephony and providing a CAMEL service, comprising at least

user equipment;

a first network node; and

a second network node,

wherein

the first network node is arranged to add CAMEL-related information relating to a call made to the user equipment to a SIP message and to send the SIP message to the second network node; and

the second network node is arranged to separate the CAMEL-related information from the SIP message.

25. (Original) A communications system according to claim 24, wherein

the first network node is arranged to generate a CAMEL call reference number and to add at least the CAMEL call reference number and its address as CAMEL-related information to the SIP message.

26. (Original) A communications system according to claim 24, wherein

the first network node is arranged to generate a CAMEL call reference number, to code at least the CAMEL call reference number and its own address to a digit string and to add at least the digit string as CAMEL-related information to the SIP message; and

the second network node is arranged to decode the digit string.

27. (Previously Presented) A communications system according to claim 24, wherein the SIP message is a SIP INVITE message comprising CAMEL-related information in the header of the SIP INVITE message.

28. (Previously Presented) A communications system according to claim 24, wherein the SIP message is a SIP INVITE message comprising CAMEL-related information in the body of the SIP INVITE message.

29. (Currently Amended) A communications system providing IP telephony, the system comprising: at least

user equipment;

a first network node; and

a second network node,

wherein

the first network node is arranged to add first service reference information relating to a call made to the user equipment to an IP telephony ~~signalling~~-signaling protocol message initiating a session, to send the IP telephony ~~signalling~~-signaling protocol message initiating a session to the second network node, to receive a response message acknowledging the IP telephony ~~signalling~~-signaling protocol message initiating a session and to separate second service reference information relating to the call from the SIP response message; and

the second network node is arranged to separate the first service reference information from the IP telephony ~~signalling~~-signaling protocol message initiating a session, to add the second service reference information to the response message and to send the response message to the first network node, wherein the first service reference information is non-IP telephony signaling protocol service information.

30. (Original) A communications system using SIP for IP telephony and providing a CAMEL service, comprising at least

user equipment;

a first network node; and

a second network node,

wherein

the first network node is arranged to add first CAMEL-related information relating to a call made to the user equipment to a SIP INVITE message, to send the SIP INVITE message to the second network node, to receive a SIP response message acknowledging the SIP INVITE message and to separate second CAMEL-related information relating to the call from the SIP response message; and

the second network node is arranged to separate the first CAMEL-related information from the SIP INVITE message, to add the second CAMEL-related information to the SIP response message and to send the SIP response message to the first network node.

31. (Original) A communications system according to claim 30, wherein

the first CAMEL-related information includes at least the address of the first network node,

the second network node is further arranged to generate a CAMEL call reference number; and

the second CAMEL-related information includes at least the CAMEL call reference number.

32. (Original) A communications system according to claim 30, wherein

the first network node is further arranged to generate a CAMEL call reference number; and

the first CAMEL-related information includes at least the generated CAMEL call reference number; and

the second CAMEL-related information includes at least the address of the second network node.

33. (Currently Amended) A network node in a communications system providing IP telephony, wherein the network node comprises means for adding non-IP telephony signaling protocol service reference information to an IP telephony ~~signalling~~ signaling protocol message.

34. (Currently Amended) A network node in a communications system providing IP telephony, wherein the network node comprises means for separating non-IP telephony signaling protocol service reference information from an IP telephony ~~signalling~~ signaling protocol message.

35. (Original) A network node in a communications system using SIP and providing a CAMEL service, wherein the network node comprises means for adding CAMEL-related information to a SIP message.

36. (Original) A network node in a communications system using SIP and providing a CAMEL service, wherein the network node comprises means for generating a

CAMEL call reference number and means for adding at least the CAMEL call reference number as CAMEL-related information to a SIP message.

37. (Currently Amended) A network node according to claim 33, wherein the network node comprises a call state control function configured to generate the non-IP telephony signaling protocol service reference information.

38. (Previously presented) A method according to claim 16, wherein the CAMEL-related information is added to the header of the IP telephony signalling protocol message.

39. (Previously presented) A method according to claim 16, wherein the CAMEL-related information is added to the body of the SIP message.

40. (Currently amended) A method according to claim 17, wherein the CAMEL-related information is added to the header of the IP telephony ~~signalling~~ signaling protocol message.

41. (Previously presented) A method according to claim 17, wherein the CAMEL-related information is added to the body of the SIP message.

42. (Currently amended) A method according to claim 18, wherein the CAMEL-related information is added to the header of the IP telephony ~~signalling~~ signaling protocol message.

43. (Previously presented) A method according to claim 18, wherein the CAMEL-related information is added to the body of the SIP message.

44. (New) A processor configured to add non-IP telephony signaling protocol service reference information to an IP telephony signaling protocol message.

45. (New) A processor configured to separate non-IP telephony signaling protocol service reference information from an IP telephony signaling protocol message.

46. (New) A processor configured to separate a charging identifier to be used in billing as charging correlation information from an SIP message.

47. (New) A processor configured to generate a charging identifier to be used in billing as charging correlation information and to add at least the charging identifier to an SIP message.

48. (New) A computer readable medium having a computer-executable software routine comprising adding non-IP telephony signaling protocol service reference information to an IP telephony signaling protocol message.

49. (New) A computer readable medium having a computer-executable software routine comprising separating non-IP telephony signaling protocol service reference information from an IP telephony signaling protocol message.

50. (New) A method as claimed in claim 1, wherein the non-IP telephony signaling protocol service reference information comprises a charging identifier generated to be used in billing as charging correlation information.

51. (New) A network node according to claim 37, wherein the call state control function is configured to generate, as the non-IP telephony signaling protocol service reference information, a charging identifier to be used in billing as charging correlation information.